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Analysis of Ownership Structure and Firm Value in India

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Abstract:

Agency problems results from the divergence of interest between stockholders and management in publicly traded companies. The potentially significant losses from these conflicts can be harmful to the performance of the firm and its survival. Insider ownership is one of the internal controlling mechanisms that could theoretically reduce agency costs. Earlier researcher has investigated the effects of insider ownership on firm performance. We have attempted to add few more dimensions to it. Firstly, very few studies were undertaken to study this relationship after the implementation of revised corporate governance code in 2006 in India, and after the changes in the disclosures of insider ownership as per the clause 49 of the listing agreement. Secondly, earlier studies did not take into account the time lag for the studies on Indian markets. We have attempted time lag studies using panel data on the Indian Markets.

Keywords: Insider ownership, firm value, corporate governance

1. Introduction

In Asian economies including India, concentrated ownership and control is the rule rather than the exception. Corporations in such countries are typically affiliated with family owned business groups and unlike widely held firms, there is little separation of ownership from control, with families having both substantial ownership and management control. When ownership and control are concentrated in the same hands, the divergence of interest between management and the shareholders becomes more prominent and agency problems creep in. Controlling shareholders, by virtue of their substantial equity stakes, would have a strong incentive to monitor and thus limit shareholder-manager agency problem, which is owner-manager conflict. However, the presence of controlling shareholders can also lead to a conflict of interest between them and the outside minority shareholders if the former seeks to extract and optimize private benefits for themselves at the expense of minority shareholders (Morck and Yeung, 2004). Gaining effective control of the corporation enables the controlling owner to determine not just how the company is run, but also how profits are being shared among the shareholders (Classens and Fan, 2002).

This study has examined how inside ownership has affected firm performances in India. In fact, India being an emerging economy is working hard towards the development of strong corporate governance. The major players and patterns of trading have changed substantially in the last two decades due to liberalization of the Indian economy. The Government and the SEBI have encouraged retail investors to become the part of the capital markets directly or indirectly. Given changing economic scenario and the corporate governance reforms, it makes all the more important for us to study the relationship between impacts of insider's stake on firm value. This study provides more evidence of insider ownership as an internal controlling mechanism using time lag of one and two years post implementation of revised corporate governance code in India. This study has attempted to build a quantitative model of the effects of insider ownership in publicly traded companies in India.

2. Objectives of the Study

1. To Study the relationship between Indian individual promoters and performance of listed companies.
2. To study the relationship between Indian Corporate promoters and the performance of the company.
3. To explore the relationship between Foreign Individual promoters and the firm performance.
4. To explore the relationship between Foreign Corporate ownership and performance of the company.

3. Literature Review

Manoranjan (2008) analyzed the effect of insider ownership on corporate value on the BSE listed firms. He particularly looked into the nature of relationship between insiders' equity holding and firm value. He observed a significant non-monotonic relationship between insider shareholding and firm value.

Phani et al. (2004) reported relationship between insider ownership and the overall efficiencies of the firm, especially operational efficiencies of the firm in the Indian corporate sector. They classified the firms under 26 industry classifications using NIC code of 1970 for the manufacturing sector. Their results indicated that insider ownership in the Indian context has no influence on the performance of the firm in a majority of industries.

Jayati S. & Subrata S. (2000) provide evidence from large developing and emerging economy, India, on the role of large shareholders in monitoring the performance of company management. They reported that relationship between each of the different types of shareholder and company value is piecewise linearly related.

Ekta (2005) analyzed the role played by ownership concentration of outside block-holders controlling at least 5% of the total equity of the firm in situations when equity holding is less compared to more concentrated holdings of promoters. They found a curvilinear relationship between firm value and fraction of voting rights owned by insiders. The curve sloped downwards until insider ownership reaches approximately between 45% and 63%, then slopes upward.

Khanna and Palepu (2000) studied the interaction between three kinds of concentrated owners commonly found in an emerging market: family-run business groups, domestic financial institutions, and foreign financial institutions. They concluded that groups are difficult to monitor, and that foreign institutional investors serve a valuable monitoring function as emerging markets integrate with the global economy.

Claessens et al. (2002) documented the benefits of stock concentration as an alignment effect, when the company's ownership and stock concentration takes place. In the alignment effect as the amount of shares withheld by the controller increases, it increases the incentives for monitoring, at the same time as the expropriation costs also increases. At this point, the ownership of a great amount of shares brings the controller commitment cost comparable to the private benefits of minority expropriation.

4. Research Methodology

All financial and equity data used in this study was secondary and was available in Prowess database. The universe or population for this study is all the companies listed on the NSE. We employ a cross-sectional sample of 287 S&P 500 index firms and 230 non-index firms traded on the NSE for the period 2006-2012 that have reported detailed ownership data. Following Jayesh (2003), we exclude companies whose sales, ownership structure, age and total assets data are not available for at least three consecutive years during the period of study. We cannot avoid this condition because the use of firms with observations less than three continuous years will not help in the time lag methodology. The sample covers 106 industry groups as defined by prowess.

We have collected data inputs for insider ownership wherein % of shares held by Indian individual promoters, Indian corporate promoters, Foreign Individual promoters, and foreign corporate promoters for the period of 7 years was collected. We have used age, Ln (sales), Advertising intensity, R&D intensity, Marketing Intensity, Debt intensity and Insider present as control variables as mostly used by earlier researchers like Manoranjan (2008), Jayesh (2003), Ekta (2005) Jayati et al. (2000) and many other researchers.

4.1. Explanation of Variables

4.1.1. Independent Variables

The Dependent variables used are as follows.

- Sales or Ln (sales): Firm size is measured using natural logarithm of sales revenue of each year. Firm size influence performance of firms, but it is difficult to predict the sign of the coefficient beforehand.
- Debt intensity: Debt Intensity is defined as the ratio of long term debt to total assets. In a Modigliani-Miller framework, the market value of any firm is independent of its capital structure. However, as tax shields are precious, firm value should increase with the amount of leverage.
- Age: Age is defined as the number of years since the year of incorporation of the firm. Age has an ambiguous effect on the firm performance.
- Insider Present-We identified companies where promoter, who is also the Managing Director of the company and the executive member of the Board of Directors as the clear evidence of insider owner-manager model. Companies whose promoters are on the board of directors as non-executive members indicate scarce evidence for insider owner-manager model. We collected this data using the corporate governance reports of all the companies in the sample.
- Research and development intensity: This is measured as the ratio of R&D expenditure to capital. Firms with higher R&D Intensity are expected to perform better as they are more foresighted and have higher scope for new innovation.
- Advertising Intensity: This is defined as the ratio of advertising and promotional expenditure to sales. It captures the effect of intangible assets along with R&D Expense.
- Marketing Intensity: Marketing intensity is defined as the ratio of marketing expenses to sales. It captures the effect of marketing efforts of the firm which can boost the performance of the firm in the future.

4.1.2. Dependent Variables

Following dependent variable is used for the study.

- Tobin's Q- It is also called as Q ratio and is calculated as (Market value of equity + Preference capital + total borrowings)/Book value of Assets. It is argued that accounting measures such as ROA, ROE and ROS are noisy as all firms do not follow same accounting procedure in emerging economies.

4.1.3. Variables of Interest

Variable of interests are independent variables. The relationship of variable of interest with dependent variable is the major area of study for this research. Following are the variables of interest studied by us.

- a) Indian Individual promoters- All Indian individuals / HUFs who promoted / founded the company and/ or who acquired the company, and are presently in 'control' of the company and their relatives. All shares presently under lock-in should also be included. (The term 'Relatives' is defined in the Companies Act.)
- b) Indian Corporate promoters - All Indian corporate bodies / trusts / partnership or any other type of entity which promoted / founded the company and / or who acquired the company, and are presently in 'control' of the company. All shares presently under lock-in should also be included.
- c) Foreign Individual promoters- All foreign individuals who hold shares with controlling interest, including all FDIs.
- d) Foreign Corporate promoters- Foreign corporate bodies, including foreign banks, which hold shares with controlling interest, including all FDIs.

5. Research Hypotheses

As the empirical and theoretical literature indicates the relationship between insider ownership and firm value is non-linear in nature (Shleifer and Vishny, 1986; Morck, Shleifer and Vishny, 1988, McConnell and Servaes, 1990). This non-linearity is ascribed to convergence of interest and entrenchment hypothesis. When the shareholding of insiders is very low, the entrenchment effect is non-operational due to lower control over the decision making process of the firm. As per entrenchment hypothesis, more equity ownership by managers / insiders may lead to lower financial performance. The reason being, with large ownership stake they may be so powerful that they do not have to consider other stakeholder's interest. Being wealthy, there is no need for them to strive for maximization of profit; rather they may try to maximize their personal utility. Considering various arguments, we assume four hypotheses which could be formally stated as follows.

- H1: Firm performance (Tobin's Q) does not depend upon Indian individual promoter's stake in the firm
- H2: Firm performance (Tobin's Q) does not depend upon Indian corporate promoter's stake in the firm.
- H3: Firm performance (Tobin's Q) does not depend upon Foreign Corporate promoter's stake in the firm
- H4: Firm performance (Tobin's Q) does not depend upon foreign individual promoter's stake in the firm.

6. Data Analysis

The relationship between ownership and performance is analyzed using an unbalanced panel data regression. Panel data arise when observations are available with both a cross-sectional and a time series dimension. We started analysis using stepwise pooled OLS regression on panel data as a complementary technique in model building. The results were not found to be satisfactory as they were statistically not significant. Next, we attempted fixed effect panel data regression for the analysis. Although the coefficient of correlation was good for the fixed effect model, none of the variables of interest and control variables were found to be significant. Later we used random effect panel data regression wherein statistically significant results were obtained. Hence we developed the quantitative models using random effect panel data regression. We study the effect of insider's stake on the performance of the company using time lag. The general form of the regression specification, we estimate is as follows.

Performance = f (Ownership Variables, Control Variables) (1)

The regression equation that we estimate includes Indian individual promoter, Indian corporate promoter, foreign individual promoter and foreign corporate promoter in the ownership category and the dependent variable as Tobin's Q with time lag of 1 year.

$$\text{Tobin's } Q_{it} = \beta_0 + \beta_1 \text{Indind}_{it-1} + \beta_2 \text{indcor}_{it-1} + \beta_3 \text{forind}_{it-1} + \beta_4 \text{forcor}_{it-1} + \beta_5 \ln(\text{sales})_{it-1} + \beta_6 \text{Age}_{it} + \beta_7 \text{debt_in}_{it-1} + \beta_8 \text{mktg_in}_{it-1} + \beta_9 \text{advtg_in}_{it-1} + \beta_{10} \text{R\&D_in}_{it-1} + \beta_{11} \text{insiderpresent} + \beta_{12} \text{dummy} + \varepsilon_{it} \quad (2)$$

The regression equation that we estimate includes Indian individual promoter, Indian corporate promoter, foreign individual promoter and foreign corporate promoter in the ownership category and the dependent variable as Tobin's Q with time lag of 2 years.

$$\text{Tobin's } Q_{it} = \beta_0 + \beta_1 \text{Indind}_{it-2} + \beta_2 \text{indcor}_{it-2} + \beta_3 \text{forind}_{it-2} + \beta_4 \text{forcor}_{it-2} + \beta_5 \ln(\text{sales})_{it-2} + \beta_6 \text{Age}_{it} + \beta_7 \text{debt_in}_{it-2} + \beta_8 \text{mktg_in}_{it-2} + \beta_9 \text{advtg_in}_{it-2} + \beta_{10} \text{R\&D_in}_{it-2} + \beta_{11} \text{insiderpresent} + \beta_{12} \text{dummy} + \varepsilon_{it} \quad (3)$$

7. Results

We believe that ownership structure is an important governance mechanism designed to run the business activity in any economy. The hypotheses stated that Performance of the firm depends on the level of ownership by various stakeholders in business.

7.1. Sample Characteristics

Table 1 presents the sample characteristics. The companies in the sample have a mean age of 32 years with oldest company of 141 years and the youngest of 2 years as on 2006. The stake of Indian individual promoters in the company has a mean value of 20.10% with a maximum stake of 90 % and minimum value of 0 %. The stake of Indian corporate promoter has the mean value of 32.06 % with the maximum value of 88.58 % and minimum of 0%. The foreign individual promoters have a mean stake of 7.81% with the maximum value of 86.87% and a minimum of 0%. The foreign corporate promoters have a mean stake of 35.95% with the maximum stake of 83.05% and minimum of 0%. The mean value of the Tobin's Q for the companies in the sample is 24.28 whereas the maximum value of Tobin's Q is 8228.5 and the minimum of - 575.62

	Mean	Median	Standard Deviation	Minimum	Maximum	Count
AGE	32.896	25.000	22.392	2	141.000	3612
INDINDIVI	20.110	11.600	21.451	0	90.000	2713
INDCOR	32.066	31.490	19.772	0	88.580	2665
FORCOR	35.958	37.690	24.276	0	83.050	720
FORIND	7.814	1.795	14.218	0	86.870	474
Tobin's Q	24.283	2.954	255.281	-575.628	8228.500	3313
LN(SALES)	8.737	8.802	1.701	-1.2	15.040	3619
R&D_IN	0.007	0.000	0.028	0	0.673	2490
DEBT_IN	0.280	0.278	167.002	0	2.910	3570
MKTG_IN	0.217	0.010	4.826	0	185.773	3410
ADVTG_IN	0.026	0.010	0.082	0	2.037	2967

Table 1: Descriptive Statistics
Source-Excel Output

7.2 Test for existence of Multicollinearity between dependent variables

Spearman correlation matrix has been constructed with 'r' values for all test variables and reported in Table 5.2. From Table 2, it is evident that there is no significant correlation between the variables chosen for the multiple regression models. Multicollinearity is indicated by bivariate correlation of 0.90 and above. It is evident from the correlation matrix that there seems to be no multicollinearity within the variables.

	Age	Indian Promoter individual	Indian promoter corporate	Foreign promoter corporate	Foreign individual promoter	Tobin's q	Ln(sales)	R&D Intensity	Debt intensity	Marketing intensity	Advtingten sity
Age	1.00										
Indian promoter individual	-0.26	1.00									
Indian promoter corporate	0.07	-0.55	1.00								
Foreign promoter corporate	0.08	-0.09	-0.50	1.00							
Foreign individual promoter	-0.13	-0.02	-0.18	0.17	1.00						
Tobin's q	0.05	0.05	0.03	0.11	-0.02	1.00					
Ln(sales)	0.20	-0.15	0.08	-0.02	-0.14	0.06	1.00				
R & D Intensity	-0.07	0.02	-0.01	0.00	-0.01	-0.02	-0.06	1.00			
Debt Intensity	0.01	0.01	-0.02	-0.29	-0.19	0.00	0.01	0.05	1.00		
Marketing Intensity	-0.02	-0.03	0.03	-0.03	-0.03	0.00	-0.13	-0.01	0.00	1.00	
Advtg Intensity	0.01	-0.04	-0.06	-0.23	-0.18	-0.01	0.00	0.05	0.09	-0.01	1.00

Table 2: Test for Multicollinearity
Source: Excel output

7.3. Analysis of the Estimated Output

This section presents the results of all hypotheses testing in this study. All hypotheses tests have used a significance level of 5 %, unless otherwise stated or indicated. This section is divided into two parts as per the models developed by us.

7.3.1. Model 1-Exploring the general relationship between Firm performance as measured by Tobin's Q and Insider's stake using a time lag of one year

In Table 3, we report the OLS results of the insider ownership and firm performance using a time lag one year. The first model reports the results from a baseline specification using only ownership variables, in which Tobin's Q is regressed against Indian Individual promoter, Indian Corporate Promoter, Foreign Individual promoter and foreign corporate promoter. The results from model 1 confirms our hypotheses that Indian individual promoter's stake does have a significant effect on the performance of the firm. Indian corporate promoter's stake does have a significant effect on the performance of the firm at 10% level of significance. Foreign corporate and individual promoters are found to have an insignificant effect on the performance of the firm.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.35	3.90	-0.60	0.55
AGE	0.05*	0.01	3.72	0.00
LN(SALES)	0.29	0.32	0.92	0.36
INDIANPROMOTER_INDIVI	0.25*	0.06	3.99	0.00
INDIANPROMOTER_CORP	0.05**	0.03	1.75	0.09
FOREIGNPROMO_CORPORATE	-0.02	0.04	-0.61	0.54
FOREIGNINDIVIDUAL_PROMO	0.32	0.19	1.63	0.11
DEBT_INTENSITY	10.28*	2.50	4.11	0.00
MARKETING_INTENSITY	-1.46	12.74	-0.11	0.91
ADVERTISING_INTENSITY	-15.79	12.34	-1.28	0.21
R_D_INTENSITY	-83.08	128.12	-0.65	0.52
INSIDERPRESENT	-5.14	3.44	-1.50	0.14
DUMMY	2.49*	0.93	2.67	0.01
	Weighted Statistics			
R-squared	0.72			
Adjusted R-squared	0.63			
S.E. of regression	2.14			
F-statistic	8.51			
Prob(F-statistic)	0.00			
Durbin-Watson stat	1.86			

Table 3: Regression results with dependent Variable- Tobin's Q with time lag of 1 year

Source: E-Views Output

Note:-In the above table, Figures with * were found to be significant at 5% whereas Figures with ** were found to be significant at 10% level of significance.

7.3.2. Model 2-Exploring the general relationship between Firm performance as measured by Tobin's Q and Insider's stakeusing a time lag of two year

We report the OLS results of the insider ownership and firm performance using a time lag two years. As observed in table 4, Indian individual promoter's stake has a significantly positive relationship with Tobin's Q, we reject the null hypothesis and conclude that Indian individual promoter's stake does have a significant effect on the performance of the firm. Indian corporate promoter's stake does have a significant effect on the performance of the firm at 10% level of significance. Foreign corporate promoters' stake also have significant effect on performance of the firm but Foreign Individual promoters stake were found to have insignificant effect on performance.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-4.86	3.08	-1.58	0.12
AGE	0.08*	0.01	7.08	0.00
LNSALES	-0.37	0.32	-1.16	0.25
INDIANPROMOTER_INDIVI	0.16*	0.07	2.35	0.03
INDIANPROMOTER_CORP	0.06**	0.03	1.87	0.07
FOREIGNINDIVIDUAL_PROMO	0.29	0.21	1.38	0.18
FOREIGNPROMO_CORPORATE	0.08*	0.03	3.11	0.00
DEBT_INTENSITY	17.57*	2.55	6.89	0.00
MARKETING_INTENSITY	6.47	15.93	0.41	0.69
R_D_INTENSITY	124.18	126.65	0.98	0.33
ADVERTISING_INTENSITY	-51.22*	12.77	-4.01	0.00
DUMMY	1.93*	0.91	2.11	0.04
	Weighted Statistics			
R-squared	0.71			
Adjusted R-squared	0.60			
S.E. of regression	2.32			
F-statistic	6.98			
Prob (F-statistic)	0.00			
Durbin-Watson stat	2.06			

Table 4: Dependent variable Tobin's Q with a time lag of two years

Source: E-Views Output

In the above table, Figures with * were found to be significant at 5% level of significance whereas Figures with ** were found to be significant at 10% level of significance.

7.3.3. Tests for Existence of Autocorrelation

Regression assumes independence of errors i.e. there is no autocorrelation in the residuals from a regression. The Durbin Watson statistics is used to test the presence of autocorrelation. Any value of the Durbin Watson statistics less than one or greater than three is not acceptable. Table 5.3 reports a Durbin Watson statistics for all the models which are acceptable. Thus the assumption of independent errors in the regression is tenable.

Regression Model No	Durbin Watson Statistics
1	1.86
2	2.06

Table 5: Durbin Watson Statistics
Source- E-Views output compiled by the researcher

8. Conclusion and Recommendations

We tested each hypothesis using two different models. The models differ from each other in terms of dependent variable, Performance measurement and time lag factor. All the models are statistically significant with adjusted R² of 63.00%, 60.46%, and for model 1 and 2 respectively.

The result of this research offer corroborative evidence that insider ownership is value enhancing. Insider ownership as measured by Indian promoters- individuals is shown to increase firm performance as measured by a proxy for firm performance – Tobin's Q. Indian corporate promoters are also found to be having significant impact on the performance of the company. Similar results were not observed for foreign corporate promoters and foreign individual promoters in model one. However, when the time lag of two years was taken into account for model 2, foreign corporate promoters were found to be significantly contributing to the performance of the company in line with the Indian individual promoters. One common thread across all the models developed is consistent influence of Indian individual promoters and Indian corporate promoters on the performance of the company. The results suggest that when insider ownership is considered, the incentive alignment effect of insider ownership is larger than the entrenchment effect. Furthermore, the entrenchment effect can be reduced with higher monitoring by independent directors.

Hence we recommend that the role of Independent Directors is very crucial. Hence the method of compensation can be changed for independent directors like giving them certain stake in the company on a deferred basis. Similarly, employees of the company should be encouraged to become whistle blowers by offering them legal protection.

9. Limitations and Future Scope

Following limitations were facing by us.

1. There may have been a survivorship bias, since data on stocks taken off the market were no longer available.
2. The study excluded banking stocks as these stocks have different accounting methods and performance indicators.
3. Companies incorporated after year 2005 were excluded from the sample to avoid missing data inputs issues.
4. The study excluded IPO stocks during 2006-12 from the sample due to their abnormal variations in price post listing.
5. The study excluded central and state government owned companies as their decision making processes are far different from other public limited companies
6. The study excluded merged companies from the sample as their performance might get affected by the synergies of the merger.

The role of the board members as independent members is very crucial in the protection of minority shareholders. There is a scope for research in this area as very little information is available in public domain. Non-financial parameters such as corporate social responsibility and corporate governance practices are the major developments in the Indian corporate scenario. The impact of these factors on the choices of the investors could be studied to understand the importance of these issues from the investor's point of view.

10. References

- i. Claessens, S., & Fan, J. P. (2002). Corporate governance in Asia: A survey. *International Review of finance*, 3(2), 71-103.
- ii. Ekta Selarka (2005), Ownership concentration and firm value: A study from the Indian corporate sector', *Emerging Markets Finance and Trade*, vol.41, no. 6,
- iii. Jayati Sarkar and Subrata Sarkar (2000) Large shareholder activism in corporate governance in developing countries: Evidence from India *International Review of Finance*, 1(3), September 2000.
- iv. Jayati Sarkar and Subrata Sarkar (2003), 'Corporate Governance Reforms and Corporate Sector Developments in India' in Darryl Reed and Sanjoy Mukherjee (eds), *Corporate Governance, Economic Reforms and Development*. New Delhi: Oxford University Press
- v. Jayesh Kumar (2003), "Does Ownership Structure Influence Firm Value? Evidence from India" SSRN working paper 464521

- vi. Khanna, T., & Palepu, K. (2000). Emerging market business groups, foreign investors, and corporate governance (No. w6955). National Bureau of Economic Research
- vii. Manoranjan Pattnayak (2008) "Insider Ownership and Firm Value: Evidence from Indian Corporate Sector" <http://mp.ra.ub.uni>.
- viii. Morck R, Andrei Shleifer and Robert W Vishny (1988) Management ownership and market valuation, *Journal of Financial Economics*, 20 pp, 293-315
- ix. McConnell, J. J., & Servaes, H.(1990). 'Additional evidence on equity ownership and corporate value.' *Journal of Financial economics*, 27(2), 595-612.
- x. Morck, R., Wolfenzon, D., & Yeung, B. (2004). 'Corporate governance, economic entrenchment and growth' (No. w10692). National Bureau of Economic Research.
- xi. Shleifer and Vishny (1986). "Large Shareholders and Corporate Control". *Journal of political economy*, 94(3 part1) pp.461-88
- xii. Phani, Reddy, Ramachandran, Bhattacharyya, (2004) "Insider Ownership, Corporate Governance and Corporate performance" NSE Research initiative proposal SSRN No. 696462